

WE CLAIM:

1. A system for printing, stacking and binding pages, the system comprising:
 - a) a drive system arranged so as to direct pages along a page path;
 - 5 b) a print station positioned on the page path downstream of the drive system for printing on the pages;
 - c) an adhesive station positioned downstream of the drive system, the adhesive station being adapted to apply adhesive to one or more edges of each page;
 - d) a support tray for receiving pages to be stacked, the support tray including a support surface on which the pages are stacked and at least two side walls coupled to the support surface;
 - 10 e) a vibrator interacting with the tray so as to induce vibration therein to assist in alignment of the pages as they float into position, thereby ensuring the stacked pages are aligned; and,
 - 15 f) a press device adapted to apply a compressive force to the stack of pages, adjacent an edge of the stack, to thereby bind the pages.
2. The apparatus of claim 1, the drive system being adapted to direct pages into the support tray above the support surface, thereby causing the pages to float into position on at least one of the support surface and the stack;
- 20 3. The apparatus of claim 1, the adhesive system being positioned on the page path downstream of the printing system.
- 25 4. The apparatus of claim 1, the adhesive system being a contactless adhesive applicator.
5. The apparatus of claim 1, the print system being an ink jet printing system having at least one print head.
- 30 6. The apparatus of claim 5, the adhesive system being formed integrally with the print head.

7. The apparatus of claim 6, the print system including two print heads, one positioned on either side of the page path for printing on both sides of the page.
- 5 8. The apparatus of claim 7, the adhesive system being a two part adhesive system with one part of the adhesive system being provided in each print head.
9. The apparatus of claim 1, the apparatus further including means for generating an air cushion on either side of the page as it passes through the printing station to thereby aid drying of the ink.
- 10 10. The apparatus of claim 1, wherein the support surface of the tray is of adjustable height relative to the press device, so as to ensure that an upper page of the stack is situated at a predefined level for interaction with the press device.
- 15 11. The apparatus of claim 1, wherein the tray has a support surface having one corner that is lower than other portions of the support surface.
12. The apparatus of claim 11, wherein the two side walls extend substantially perpendicularly to each other so as to define a corner, the corner being aligned with the lower corner of the support surface
- 20 13. The apparatus of claim 1, the drive system being adapted to direct pages into the support tray bear against the two side walls for alignment of the pages within the stack.
- 25 14. The apparatus of claim 1, wherein vibration of the tray is dampened by dampers.
15. The apparatus of claim 1, wherein the tray is supported by a frame.
- 30 16. The apparatus of claim 15, wherein the tray is suspended from the frame.
17. The apparatus of claim 15, wherein dampers extend from the tray to the frame.

18. The apparatus of claim 1, wherein the vibrator is a subsonic vibrator.

19. The apparatus of claim 12, wherein the support surface of the tray is movable as each page is delivered thereto.

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20. A method of printing, stacking and binding pages using a support tray including a support surface on which the pages are stacked and at least two side walls coupled to the support surface, the method comprising:

- 10 a) printing on the pages using a printing station;
- b) applying adhesive to the pages using an adhesive station;
- c) delivering pages one after another to the support tray to form a stack of pages;
- d) vibrating the support tray during and after delivery to thereby align the pages in the stack; and,
- 15 e) placing a compressive force on the stack to thereby bind the stack.

21. The method of claim 20, the method including placing the compressive force on the stack using a press device.

20 22. The method of claim 21, the method further including applying the adhesive to an edge of the papers, and applying the compressive force to the edge of the stack corresponding to the edge of pages to which the adhesive is applied, thereby causing the adhesive to bond the pages together.

25 23. The method of claim 22 wherein the step of aligning the pages comprises aligning the pages in a corner of a support surface of the tray, the corner being lower than other portions of the support surface.